Winter 2006

CEG 411/611-01: Microprocessor-Based System Design

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CEG 411/611 Microprocessor-Based System Design

Winter 2007, 2:45-4 PM, M., W., at 148RC

Instructor: Jack Jean

Office Hours: 1:30-2:30 PM, M, W; 3-4 PM, Tue, Thr.; 334 RC, 775-5106, jean.jean@wright.edu

Textbook: **MC68HC12: AN INTRODUCTION**, Han-Way Huang, 1st edition, Thomson Delmar Learning, 2003.

Course Prerequisites: EE301, EE302, EE260 (or CEG260), CEG220 (or CS240)

Weekly Schedule:

Week	Contents	Chapters to Read
1	Overview, Lab Preparation, C Language	1, 5
2	Timer, Output Compare, and Simple Parallel I/O	8
3	Interrupts and Resets	6
4	ADC	10
5	**MIDTERM**; 68HCS12 Assembly Programming	1
6	68HCS12 Assembly Programming	2
7	Stack and Subroutine Calls	4
8	More Timer Functions	8
9	Parallel I/O	7
10	SCI and SPI	9

Grading: Final letter grade: 90+ (A), 80+ (B), 70+ (C), 60+ (D), otherwise (F).

- Lab. - 30%. ***You must attain at least 60% in Laboratory to pass this course.*** Quizzes (20% of the lab grade) will be given in the lab to test your preparation and understanding of the lab assignments.
- HW - 10%. All HW assignments should be done individually. Discussion with friends should be limited to clarification of problems and approaches. Sharing or copying of the solutions will be considered as academic dishonesty and be treated according to the corresponding WSU policy.
- Quiz - 10%. Unannounced quizzes (closed book and notes) will be given at the beginning of classes.
- Midterm - 25%; Jan. 31, Wed., open book and notes.
- Final - 25%; March 14, Wed, 3:15-5:15 PM, not comprehensive, open book and notes.

CEG 411/611 LAB SCHEDULE & NOTES Winter 2007

Schedule of Laboratory Experiments:

Week	Lab No.	Experiment
1		No Lab
2	1	Laboratory Familiarization (5%)
3		No Lab (MLK Birthday on Monday)
4	2	6812 Control in C (50%)
5	2	
6	2	
7	2	
8	2	
9	3	6812 Assembly Programming (25%)
10	3	

Unannounced quizzes (20%) will be given in the lab to test your preparation and understanding of lab assignments.

Section	Lab Time
5	2-3:50 Thr
6	11-12:50 Fri
7	4:10-6 Mon*
8	7:30-9:20 Wed

* Jan. 8 (Monday) is the first day of labs.

Everyone is required to attend weekly 2-hour Labs in Room 339, Russ Center (RC). If you need more time, you will have 24-hour ID-card access to 339 RC to work on your own. Both Theory and practical Laboratory experience are important. You must attain a passing grade in Laboratory to pass this course.

For each lab (except Lab 1), you need to turn in your prelab answers two days (excluding weekends) before your scheduled lab section for grading. You may turn in the prelab answers either in person to the lab instructor or simply slide them under the door of RC339A (an office inside the lab, right next to the entrance door). For Lab 1, bring your prelab answers to your scheduled lab section for grading. Note that although the lab projects are to be done by teams, the prelab answers should be prepared individually.